APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,928	05/23/2000	Hiroshi Tanioka	862.C1913	3434

5514	7590	11/28/2003

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EXAMINER
LEE, TOMMY D

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-9_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1,2,5,6 and 9_ is/are rejected.

7) ☒ Claim(s) _3,4,7 and 8_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _23 May 2000_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1, 2, 5, 6 and 9 rejected under 35 U.S.C. 102(e) as being anticipated by

U.S. Patent 6,011,878 (Ushida et al.)

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the

invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 2 and 5, Ushida et al. teach an image processing apparatus

comprising: input means for inputting multivalued image information (scanner 100, read

column 6, lines 29-36); conversion means for performing multivalued processing on the

input multivalued image information and converting the information into data

representing a number of print dots for each pixel (four-level/two-level processor 400,

read column 60-64; note table at the top of column 14 shows four-level pixel densities

converted to patterns of dots per pixel, the number of dots corresponding to the pixel

density); counting means for counting the number of print dots for each region made up

of a plurality of pixels (numbers of dots at a pixel of interest (DATn) and peripheral

pixels (DATn-1, DATn+1) determined, read column 14, lines 33-40); and print dot layout

determination means for determining a print dot layout in a region of interest in

accordance with a count value of print dots in a peripheral region around the region of

interest (fixed pattern selected according to result of determination, read column 14,

lines 40-57). The apparatus further comprises storage means for storing data

representing the number of print dots from said conversion means (plural lines of image

data temporarily stored in line buffers, read column 15, lines 1-6); and image printing

means for printing an image on a printing medium in accordance with the print dot

layout output from said print dot layout determination means (printer 700, read column

15, lines 22-24).

Regarding claim 6, Ushida et al. teach an image processing method comprising:

an input step of inputting multivalued image information (scanner 100, read column 6,

lines 29-36); a conversion step of performing multivalued processing on the input

multivalued image information and converting the information into data representing the

number of print dots for each pixel (four-level/two-level processor 400, read column 60-

64; note table at the top of column 14 shows four-level pixel densities converted to

patterns of dots per pixel, the number of dots corresponding to the pixel density); a counting step of counting the number of print dots for each region made up of a plurality of pixels (numbers of dots at a pixel of interest (DATn) and peripheral pixels (DATn-1, DATn+1) determined, read column 14, lines 33-40); and a print dot layout determination step of determining a print dot layout in a region of interest in accordance with a count value of print dots in a peripheral region around the region of interest (fixed pattern selected according to result of determination, read column 14, lines 40-57).

Claim 9 recites a computer-readable storage medium which stores a program having program codes of the steps recited in claim 6. Ushida et al. state that these steps can be achieved by providing a storage medium storing program codes of software (column 23, lines 60-67).

Allowable Subject Matter

4.   Claims 3, 4, 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5.   The following is a statement of reasons for the indication of allowable subject matter: No prior art has been found to teach or suggest a means or step for counting print dots for each of different regions in accordance with a rotational angle, as recited in claims 3 and 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Lee whose telephone number is (703) 305-

4870. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternate

Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David K. Moore can be reached on (703) 308-7452. The fax phone number

for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

Thomas D. Lee
Primary Examiner
Art Unit 2624

tdl
November 26, 2003